R E P O R T  R E S U M E S

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OUTLINE OF VOCATIONAL TRAINING IN MALAYSIA.

AUSTRALIAN DEPT. OF LABOUR AND NAT. SERVICE, PERTH

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THE FEDERATION OF MALAYSIA HAD A 1964 POPULATION OF 9,000,000. SPECIALIZATION IN A FEW EXPORT PRODUCTS, NOTABLY RUBBER AND TIN, HAS BEEN THE BASIS OF THE ECONOMY. EDUCATION IS THE RESPONSIBILITY OF THE MINISTRY OF EDUCATION AND EFFORT IS BEING MADE TO ESTABLISH MALAY AS THE NATIONAL LANGUAGE. ELEMENTARY EDUCATION EXTENDS FOR 6 YEARS TO THE LOWER SECONDARY SCHOOL AND THAT, UPON THE BASIS OF AN EXAMINATION, TO UPPER SECONDARY OR TO A 2- OR 3-YEAR COURSE LEADING TO A TRADE, COMMERCIAL, AGRICULTURAL, OR TEACHING CAREER. THOSE IN THE UPPER SECONDARY SCHOOLS MAY QUALIFY FOR TEACHER TRAINING, TECHNICAL, AGRICULTURAL, OR COMMERCIAL COLLEGE. UPON COMPLETION OF THE UPPER PROGRAM OR THE COLLEGE PROGRAM, A STUDENT MAY QUALIFY FOR THE UNIVERSITY. TECHNICIANS ARE PREPARED AT THE TECHNICAL COLLEGES AND SECONDARY TECHNICAL SCHOOLS, BASIC SKILLS ARE DEVELOPED IN LOWER SECONDARY SCHOOLS, AND PRE-APPRENTICESHIP TRAINING IS GIVEN IN SECONDARY TRADE SCHOOLS. THE MINISTRY OF LABOR ADMINISTERS THE APPRENTICESHIP SCHEME AND OPERATES AN INDUSTRIAL TRAINING INSTITUTE. THE GOVERNMENT IS TO ENTER THE FIELD OF IN-INDUSTRY TRAINING UNDER NEW PLANS. THE MINISTRY OF EDUCATION IS RESPONSIBLE FOR AND HAS FORMULATED PLANS FOR VOCATIONAL EDUCATION IN UPPER SECONDARY SCHOOLS. (JM)

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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# Outline

of

# Vocational Training

in

# MALAYSIA

PREPARED BY THE DEPARTMENT OF LABOUR AND NATIONAL SERVICE
OF THE COMMONWEALTH OF AUSTRALIA FOR THE
PAN INDIAN OCEAN CONFERENCE ON TECHNICAL EDUCATION AND TRAINING
PERTH, 1966

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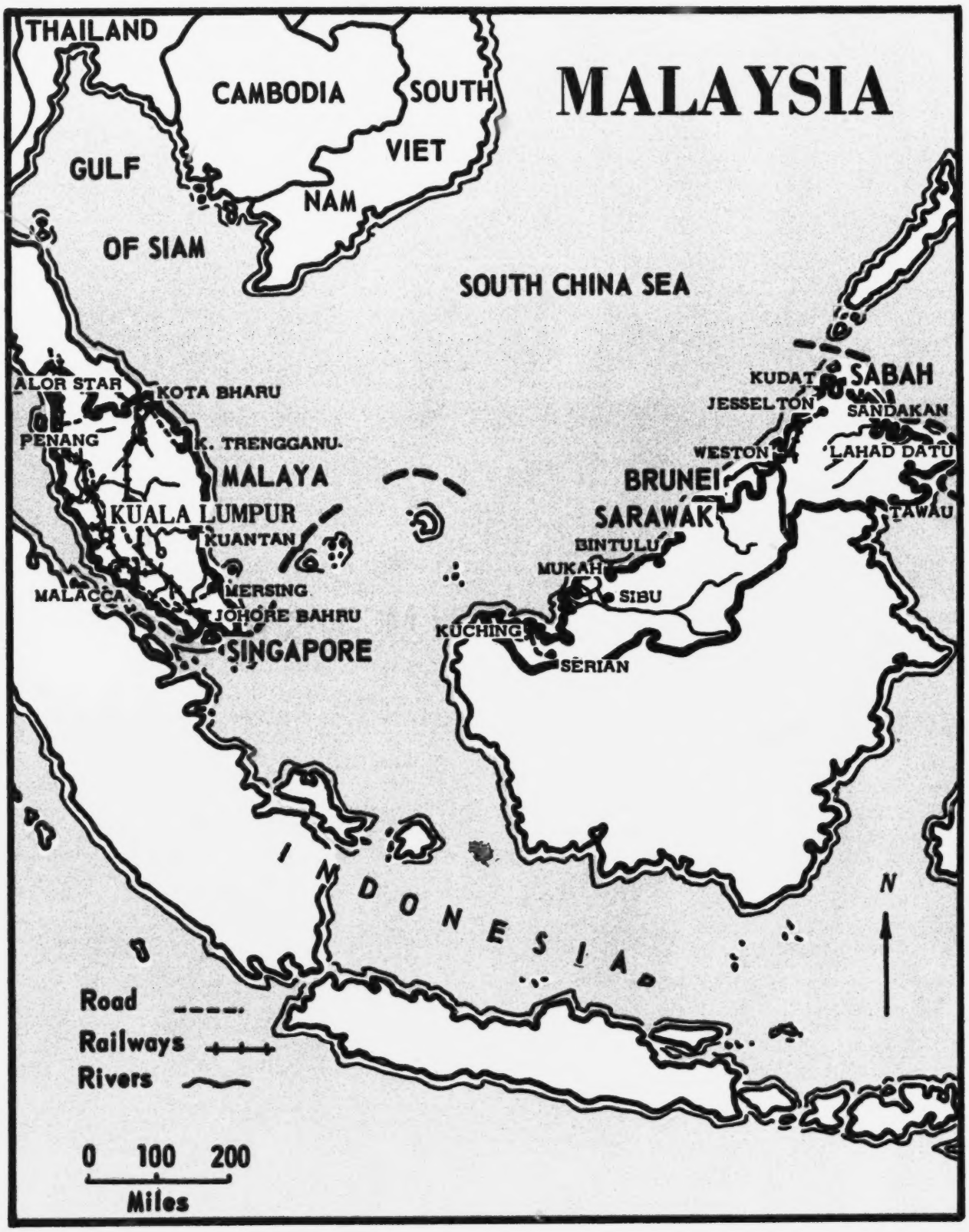
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*Frontispiece: Map of Malaysia*


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# 1. Introduction

*Area, Population*

The Federation of Malaysia has a total area of almost 130,000 square miles and an estimated population (1964) of approximately nine million. It comprises the States of Malaya (7.7 million), Sarawak (0.8 million) and Sabah (0.5 million).

*Primary Industry*

Malaysia is essentially a primary-producing country, with rubber the dominant crop and a major source of national prosperity. It accounts for 18 per cent of Gross National Product, for over 20 per cent of total employment and for approximately 35 per cent of total exports.

Rice is the staple food of most Malaysians and its production is largely in the hands of small holders. Other subsistence crops include sweet potatoes, tapioca, yams, vegetables and fruit. The most important export crops (next to rubber) are palm-oil, copra, pineapples, pepper and sago.

Animal husbandry is little developed except for poultry farming, but there are good prospects of development in the dairy industry to meet growing urban needs.

Nearly three-quarters of Malaysia is covered by forest. Although most of it is undeveloped, exports of timber, particularly from Sabah, contribute significantly to the economy of the Federation.

Malaysia's mineral wealth is considerable. Tin ranks second to rubber in export earnings and iron-ore, coal, bauxite, gold, tungsten, titanium and china clay are also found in commercial quantities.

Oil fields are being developed in both Sabah and Sarawak and it is hoped that the widespread prospecting being carried out in both areas will result in the development of further workable fields.

*Secondary Industry*

Secondary industry in Malaysia is largely at the assembly, maintenance and repair, and raw material processing stage. Engineering enterprises, for example, include the assembly and repair of motor-vehicles and earth-moving equipment, the manufacture of bus and commercial vehicle bodies, boat-building and light foundry work. Rubber processing and copra milling are widespread.

Tin smelters are located on a large scale at Penang and Butterworth, for smelting concentrates produced in Malaya as well as those imported from Thailand, Indonesia and elsewhere.

The Government has given considerable encouragement to industries through tax relief and exemptions under the Pioneer Industries Ordinance, through loans, information and research, and the establishment of training facilities for managers, supervisors and skilled workers.

*General Economic Development*

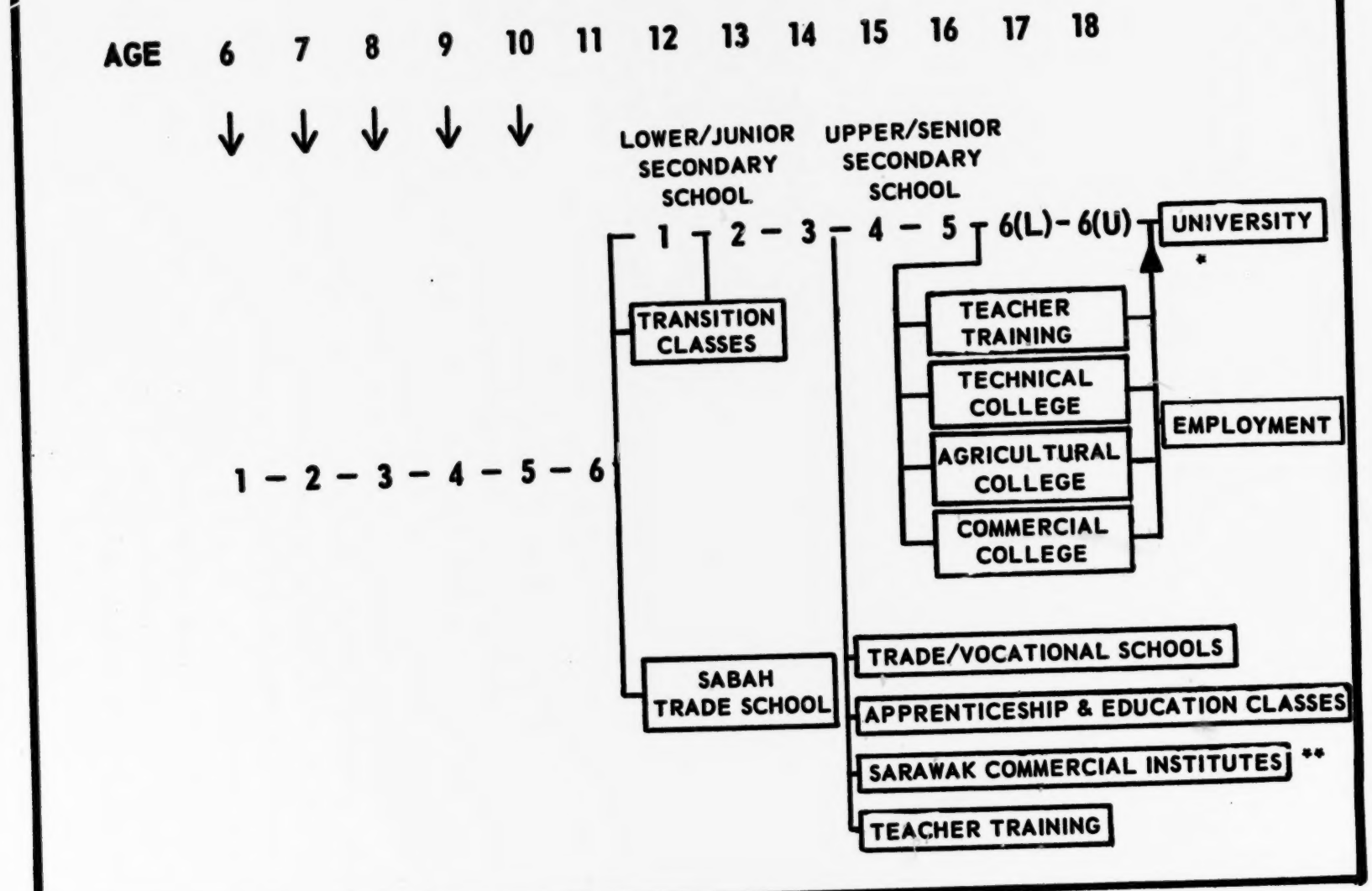
The Federation of Malaysia consists of areas which are at widely-different stages of economic and social development and with substantial differences in human and natural resources. Prosperity has been largely based on specialisation in a few profitable export products; notably rubber and tin.

Because of this development, plans have been drawn up to diversify production, increase the Gross National Product and provide employment opportunities for the rising population. The Second Five-Year Plan in Malaysia, launched in 1961, is expected to increase total national output over a five-year period by 20-25 per cent and provide employment for a further 340,000 workers. In Sabah and Sarawak development planning has led to a substantial expenditure on rubber replanting, the improvement of communications, the extension of rice irrigation and the expansion of social services.

Exports, other than rubber and tin, include iron-ore, timber, palm-oil and copra. Imports include manufactured consumer goods, machinery, chemicals, textiles, tobacco and rice.

MALAYSIA

# STRUCTURE OF EDUCATION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UPPER/SENIOR SECONDARY SCHOOL
1 2 – 3 – 4 – 5 6(L) – 6(U)
UNIVERSITY
TRANSITION CLASSES
TEACHER TRAINING
TECHNICAL COLLEGE
AGRICULTURAL COLLEGE
COMMERCIAL COLLEGE
EMPLOYMENT
SABAH TRADE SCHOOL
TRADE/VOCATIONAL SCHOOLS
APPRENTICESHIP & EDUCATION CLASSES
SARAWAK COMMERCIAL INSTITUTES **
TEACHER TRAINING

# 2. General Education

Education in Malaysia is the responsibility of the Ministry of Education. While facilities are not yet completely uniform throughout the three states, and there are four main languages of instruction, viz. English, Chinese, Malay and Tamil, the Central Government's stated policy is to establish a national system of education with Malay as the national language.

Elementary education extends over six years and leads on to lower (or junior) secondary school. For those who have had elementary instruction in a language other than English, and who wish to enter a secondary school where English is the language medium, there are special one-year transition classes in English, which must be taken prior to entry. The lower secondary school includes three years of general studies culminating in the examination for the Lower Certificate of Education. In January, 1965, a comprehensive type of education was introduced in which electives are provided in industrial arts, agricultural science, home science and commercial studies. Students who pass this examination (L.C.E.) are then eligible to further their secondary education or to undertake a two- or three-year course leading to a trade, commercial, agricultural or teaching career.

Those who choose to continue in the secondary stream enter the upper (or senior) secondary school and after two years study present for the Cambridge School Certificate examination. On completion of this Certificate, students enter either a technical, agricultural or commercial college or continue in the secondary stream. The aim of the latter group is usually to complete the additional two years leading to the Cambridge Higher School Certificate examination and thereby become eligible for university entrance.

In 1962-63 the total enrolment in primary and secondary schools was nearly 1.6 million pupils. Of this total approximately 1.4 million were in Malaya with 115,000 in Sarawak and 65,000 in Sabah. These figures indicate that, at that time, between 60 per cent and 70 per cent of children of primary school age and some 15-20 per cent of children of secondary school age were enrolled.

In 1963, almost one-third of Malaysia's national expenditure was devoted to education. Greater emphasis is now being given to expanding technical and vocational education, including the introduction of practical subjects into the curricula of secondary schools. Throughout Malaysia, the school building programme is receiving top priority.

# 3. Technical Education

*Organization and Administration*

The organization and administration of technical education in Malaysia is shared among the Federal Ministry of Education, the Ministry of Labour, and—for trade training—the local education authorities. In addition, the Rural and Industrial Development Authority organises special courses for farmers, fishermen and country women.

Advisory committees comprising representatives from industry and educational institutions have been appointed for technical and trade schools.

*Types of Institutions and Courses*

The University of Malaya at Kuala Lumpur offers courses in civil, electrical and mechanical engineering. There is no university in the Borneo territories, but scholarships are provided for education overseas. Indeed, Malaysia as a whole has to supplement its university facilities by sending students abroad for graduate and post-graduate training. In 1964, 2,200 students were enrolled in the four faculties of the University of Malaya, but a further 8,000 studied abroad.

The Kuala Lumpur Technical College offers three-year courses in civil, electrical, mechanical and radio engineering, land surveying and architecture, which lead to a diploma acceptable for entry into Government technical departments at the level of technician. The minimum entrance qualifications to the College is the Cambridge School Certificate with credits in Malay or English, Mathematics and general science. Professional courses in civil, electrical and mathematical engineering, land surveying and architecture are also provided.

Secondary Technical Schools in Malaysia have been created at Penang, Kuala Lumpur and Kuantain, to provide two- and three-year courses following the Lower Certificate of Education. These courses cover general education plus mechanical and electrical engineering and building subjects leading to the School Certificate.

At the Lower Secondary School level, practical subjects are being introduced into the curriculum and many of the larger secondary schools have industrial arts shops. Metalwork, woodwork and drawing are taught, in a few schools, up to the School Certificate level.

Throughout Malaya and at Kuching and Jesselton, secondary trade schools give pre-apprenticeship training. After a student has completed six years of primary education (Sabah) and three years of lower secondary education (Malaya and Sarawak), he may begin a course in the practical aspects of general building and mechanical work. At the Government Trade School in Jesselton, two-year courses are available in carpentry and motor mechanics and a two-and-a-half-year course in electricity.

*Arrangements for Technical Teacher Training*

The Technical Teacher Training College at Kuala Lumpur offers a two-year course in industrial arts (woodwork, metalwork, electricity or power mechanics) which enables trainees, who have completed the requirements, to teach those subjects up to Form Three in secondary schools. Advanced courses for teachers to Form Five are being planned.

# 4. Apprenticeship

Apprenticeship training at present operates only in the State of Malaya and steps are being taken to extend the scheme to the Borneo State. The declared apprenticeship trades include the mechanical, electrical, printing and building trades, and radio, refrigeration and air-conditioning servicing.

The Federal Ministry of Labour administers the apprenticeship scheme, and operates an Industrial Training Institute in Kuala Lumpur to provide both practical training and related instruction.

Government departments, semi-Government departments and private organizations all participate in the scheme and at present there are 885 registered apprentices from 185 establishments. To date, 275 lads have completed their apprenticeships. Of these, 219 have been issued with Proficiency Certificates issued by the Central Apprenticeship Board in the Ministry of Labour for passing the final practical and related instruction examinations.

In Government workshops, yearly trade tests are given as well as standard trade tests at the end of a five-year learnership for up-grading to artisans. Up-grading, throughout Government establishments, is based on trade tests for all artisans.

In Malaya, the Chinese community conducts its own form of apprenticeship for tradesmen for the tin industry.

Sarawak offers apprenticeships at the Brooke Dockyard and in the Public Works Department. A training school has been established at Kuching for the Posts and Telegraph Department, and oil companies conduct trade schools to prepare their own staffs for higher technical positions. An artisan training scheme is in preparation which will provide a two- to three-year trade-controlled apprenticeship.

## 5. Accelerated Vocational Training

Accelerated methods of vocational training are not used to any great extent in Malaysia, although the Telecommunications Department of the Ministry of Works, Posts and Telecommunications does provide special six- to eight-month courses for training and retraining technicians.

## 6. In-industry Training

Although the responsibility for promoting and developing in-industry training was previously seen to be wholly with industry, the Federal Ministry of Labour now plans to enter this field. As a first step, legislation is being prepared to put apprentice training within undertakings on a uniform basis and to establish standardised levels of skill.

An immediate problem is that private industry is largely composed of small enterprises, where new entrants have traditionally picked up their skills by watching and assisting experienced artisans. The authorities must, therefore, convince employers that they will gain from the new arrangement.

At present, with one or two exceptions, in-industry training is confined to Government departments, e.g., in Sarawak the Rural Improvement Development Centre conducts two-year courses in agriculture; in Sabah the Railways Department conducts welding and locomotive maintenance courses; while, in Malaya, the Forestry Department, the Medical Department, the Marine Department and the Civil Aviation Department, all provide specialised training for their own personnel.

Training officers are employed by one or two of the larger industries but no facilities exist as yet to train them formally.

# 7. National Planning for Vocational Training

The Ministry of Education is responsible for and has formulated plans for vocational education in upper secondary schools.

A Department of Employment and Training is being set up in the Ministry of Labour, under the First Malaysia Development Plan, to establish a national plan for industrial training covering accelerated and in-industry training. It is also proposed to set up a National Council for Industrial Training in which Government, semi-Government and private interests will be represented.

The Department of Employment and Training will co-ordinate with the Economic Planning Unit of the Prime Minister's Department to plan a strategy for human resources development in Malaysia.